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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,354	03/31/2004	Patrick Chiu	FXPL-1094US0	8294

23910 7590 08/20/2007

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EXAMINER	
PARK, EDWARD	

ART UNIT	PAPER NUMBER
2624	

MAIL DATE	DELIVERY MODE
08/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/815,354	CHIU ET AL.	
	Examiner	Art Unit	
	Edward Park	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-18 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-18 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 31 March 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 3/24/05.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Applicant is advised that should **claims 5 and 6** be found allowable, **claims 14 and 15** will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Applicant is advised that should **claims 8 and 9** be found allowable, **claims 17 and 18** will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Applicant is advised that should **claim 7** be found allowable, **claim 16** will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Objections - 37 CFR 1.75(a)

2. The following is a quotation of 37 CFR 1.75(a):

> The specification must conclude with a claim particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or discovery.

3. **Claim 13** is objected to under 37 CFR 1.75(a), as failing to conform to particularly point out and distinctly claim the subject matter which application regards as his invention or discovery.

Regarding **claim 13**, the phrase, "salient part of an image", is interpreted broadly as being a "region of interest of an image". What is the scope of the two phrases? "Salient part" suggests a prominent/striking part of an image. A prominent/striking part of an image can be a face, a particular background/object, etc. The broadest interpretation will be utilized for examination purposes. Correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1, 10, 12** are rejected under 35 U.S.C. 102(b) as being anticipated by Jun et al (US 2001/0020981 A1).

Regarding **claim 1**, Jun teaches a method for generating a highly condensed visual summary of video regions, comprising:

determining a dominant group in each of a plurality of video segments (Jun: paragraphs [0023]-[0024]);

determining a key frame in each of the video segments (Jun: paragraphs: [0023]-[0024]);

defining a germ associated with each dominant group in each of the video segments (Jun: paragraph [0051]);

laying out the germs on a canvas, each germ associated with a support; and filling in the space of the canvas (Jun: figures: 13a, 13b, 17).

Regarding **claim 10**, Jun teaches a method for generating a highly condensed visual summary of video regions, comprising:

determining a germ in each of a plurality of images, the germ containing a region of interest (Jun: paragraph [0051]);

laying out the germs on a canvas, each germ associated with a support; and filling in the space of the canvas (Jun: figures: 13a, 13b, 17).

Regarding **claim 12**, Jun teaches receiving user input, the user input associated with a part of an image (Jun: paragraph [0077]).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. **Claims 2-6, 13-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jun et al (US 2001/0020981 A1) in view of Uchihashi (ACM Multimedia: "Video Manga: Generating Semantically Meaningful Video Summaries").

Regarding **claim 2**, Jun discloses all elements as mentioned above in claim 1. Jun does not teach determining a group within each of the plurality of video segments having the largest volume.

Uchihashi teaches determining a group within each of the plurality of video segments having the largest volume (Uchihashi: section 4.2).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Jun reference to determine a group having the largest volume as suggested by Uchihashi, in order to "calculate an importance score for each segment based on its rarity and duration" since "a segment is deemed less important if it is short or very similar to other segments" (Uchihashi: section 4.2).

Regarding **claims 3, 4, 13-15**, Jun discloses all elements as mentioned above in claim 1. Jun does not teach defining a two dimensional shape that encompasses the projection of the dominant group onto the key frame; wherein the two dimensional shape is a rectangle; and using an algorithm to determine a salient part of an image.

Uchihashi teaches defining a two dimensional shape that encompasses the projection of the dominant group onto the key frame (Uchihashi: figure 2; section 4.4) and wherein the two dimensional shape is a rectangle (Uchihashi: figure 2; section 4.4).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Jun reference to define a two dimensional shape that is a rectangle as suggested by Uchihashi, in order to "form a pictorial abstract of the video sequence" where a "sequence of frames .... fills space efficiently and represents the original video sequence well" (Uchihashi: section 4.4).

Uchihashi further teaches using an algorithm to determine a salient part of an image (Uchihashi: figure 4.2).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Jun with Uchihashi combination as mentioned above to determine a salient part of an image as suggested by Uchihashi, "to select appropriate keyframes for a compact pictorial summary" (Uchihashi: section 4.2).

Regarding **claim 5 and 6**, Jun with Uchihashi discloses all elements as mentioned above in claim 3. Jun with Uchihashi as mentioned in claim 3, does not teach determining a scale factor to be applied to every germ such that the germs are scaled to the maximum size that fits into the canvas and placing the germs in rows, wherein each row has a height according to the longest germ in the particular row.

Uchihashi further teaches determining a scale factor to be applied to every germ such that the germs are scaled to the maximum size that fits into the canvas (Uchihashi: section 4.3, 4.4) and placing the germs in rows, wherein each row has a height according to the longest germ in the particular row (Uchihashi: figure 2).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Jun with Uchihashi combination to place the germs in a row as suggested by

Uchihashi, to "fill space efficiently and represent the original video sequence well" (Uchihashi: section 4.2).

8. **Claims 7-9, 16-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jun et al (US 2001/0020981 A1) in view of Li et al (US 2006/0023786 A1).

Regarding **claims 7-9, 16-18**, Jun discloses all elements as mentioned above in claim 1. Jun does not teach assigning a pixel value of each point in the canvas to the same pixel value in the support associated with the germ closest to each point; wherein if the germ closest to the point does not have a support that includes the point, the point is assigned the pixel value of the closest germ with a support that includes the point; wherein the point is assigned a background value if no support includes the point.

Li teaches assigning a pixel value of each point in the canvas to the same pixel value in the support associated with the germ closest to each point (Li: paragraph [0144]); wherein if the germ closest to the point does not have a support that includes the point, the point is assigned the pixel value of the closest germ with a support that includes the point (Li: paragraph [0052]); wherein the point is assigned a background value if no support includes the point (Li: paragraph [0052], [0144]).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Jun reference to assign pixel value to a germ that is closest as suggested by Li, to create an aesthetically/visually pleasing to the user by removing white spaces between germs.

9. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Jun et al (US 2001/0020981 A1) in view of Li et al (US 7,035,435 B2).

Regarding **claim 11**, Jun discloses all elements as mentioned above in claim 1. Jun does not teach detecting a face in each of the plurality of images.

Li teaches detecting a face in each of the plurality of images (Li: col. 7, lines 33-51).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the Jun reference to detect a face as suggested by Li, in order to determine the importance of a frame since "a human face will be more informative than, for example, a landscape frame" (Li: col. 7, lines 33-51).

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward Park whose telephone number is (571) 270-1576. The examiner can normally be reached on M-F 10:30 - 20:00, (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Werner can be reached on (571) 272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Edward Park
Examiner
Art Unit 2624

/Edward Park/

/Brian P. Werner/
Supervisory Patent Examiner (SPE), Art Unit 2624